

December 2005 Update

Eagle Mine Superfund Site Minturn, Colorado (5-Year Review Date 9/27/05)

Brief Site History: A hundred years of mining near Vail left metals that killed fish in the Eagle River, threatened drinking water wells in Minturn, Colorado. The site includes the now-flooded Eagle Mine, the abandoned town of Gilman and 8 million tons of mine wastes. Miners began working the Eagle Mine in the 1880s, searching for gold and silver. The Eagle later became a mainly zinc-mining operation, leaving high levels of arsenic, cadmium, copper, lead and zinc in the soil, and in surface and groundwater. EPA placed the mine on its National Priorities List in 1986.

Cleanup Activities Completed: The Colorado Department of Public Health and Environment (CDPHE) and the Responsible Party, Viacom, implemented a cleanup plan in 1988 to:

- Plug mine portals to flood the mine workings
- Collect and treat mine and groundwater in a newly constructed treatment plant
- Remove, consolidate and cap tailings materials, replant removal areas, cap soils

In 1989 EPA became more involved in the project, resulting in additional cleanup measures:

- Evaluating health risks in the middle school and Minturn area
- Ordering the cleanup and reconstruction of the wetlands area
- Removing hazardous materials from the mine site
- Pumping and treating groundwater
- Tightening cleanup standards on the Eagle River

The cleanup began in 1983. Since then, EPA and CDPHE have cooperated on long-term actions. In 1996 the two agencies and Viacom signed an agreement requiring evaluation and possible construction of the groundwater extraction system. Fish populations in the Eagle River have improved; testing has shown that risks to human health have diminished or do not exist.

Current Status: Current Operation and Maintenance activities include the multi-component cap over the consolidated tailings pile and the water treatment plant.

Summary of Protectiveness: The results of this second five-year review indicate that the remedy is expected to be protective of human health and the environment.

Issues Impacting Protectiveness: Nine issues were noted during the five-year review, and recommendations identified. The following table summarizes the status of the follow-up actions addressing these issues.

**Eagle Mine Superfund Site
Five-Year Review Update Table
(Review Date: 9/27/05)**

Issues	Recommendations/ Follow-up Actions	Follow-up Actions (Status/Due Date)	Status of Follow-up Actions 12/05	Responsible Party
1. The potential impact of Site redevelopment on human health and the environment during and after implementation.	The State and EPA will continue to closely work with the new owner of the property to ensure the integrity of the existing remedy and continued protection of human health and the environment during and after redevelopment. All remedial activities must be conducted in accordance with the NCP and CERCLA.	Project completion is estimated to take 5 years. Owner is characterizing the property—plan for completion Summer 2006. A comprehensive risk assessment will be subsequently prepared—plan for completion is Summer 2007.		CDPHE
2. Site redevelopment will require modifications to site decision documents and development of environmental covenants under Colorado Environmental Covenant Law, C.R.S. §§25-15-317	The statute will be utilized to develop, implement and enforce all necessary environmental covenants for the properties of interest.	Environmental covenants will be executed as the redevelopment plan is defined and approved by Minturn—plan for completion is Summer 2007.		CDPHE, Ginn Industries, Minturn
3. Institution Controls through Eagle County, as specified in the OU2 ROD, were never implemented.	The State and EPA will work with the current property owner to develop, implement and enforce the necessary ICs for Gilman through an Environmental Covenant. An ESD will be prepared to document the change in ICs for OU2.	ICs for OU2 (Gilman) will be developed in conjunction with the development of environmental covenants for the property - plan for completion is Summer 2007.		CDPHE, EPA, Ginn Entities

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4. Viacom has not conducted pumping of BW-9 in Belden.	The State and EPA will continue to work with Viacom to address the problem--BW-9 is partially filled with gravel.	ICs for OU2 (Gilman) will be developed in conjunction with the development of environmental covenants for the property of interest—plan for completion is Summer 2007.		CDPHE
5. The mine tunnel at Adit #8 has partially collapsed presenting a safety hazard for personnel entering the mine.	The State and EPA will continue to work with Viacom to address the rehabilitation of the mine tunnel to ensure continued access to the mine workings and to allow periodic confirmatory measurements of the mine pool elevation.	Resolution of this issue is planned for Spring 2006.		CDPHE
6. The four recommended activities, specified in the April 2005 Site Inspection report have not been completed.	The State and EPA will continue to pursue modifications to the Eagle River Water Quality Standards.	The hearing before the WQCC is scheduled for December 2005.		CDPHE
8. The two current CDs do not adequately address future concerns.	The State and EPA will work with Viacom to develop an agreed-upon CD that updates terms, performance standards, current/future activities, reporting requirements, and schedules.	Completion of CD will be tied to resolution of water quality standards issue.		State & EPA
9. CERCLA and WQCC five-year reviews are not synchronized.	The next five-year review will be in 2007 to align it with the WQCC's basin-wide review.	Realignment of reviews will occur in 2007		State & EPA